

## **REMARKS**

Claims 8-12 are currently pending in this application. With this Reply, The Applicant cancels claims 8-12 and adds claim 13.

In the Office Action, the Examiner objected to the drawings under 37 CFR § 1.83(a), for failure to show every feature of the claimed invention; objected to the specification as failing to provide proper antecedent basis for the claimed subject matter; rejected claims 11-12 under 35 U.S.C. § 112, for failing to comply with the written description and enablement requirements; and rejected claims 8-10 under 35 U.S.C. § 103(a) as being unpatentable over Clayson et al. in view of Crouch.

The Examiner objected to the drawings under 37 CFR § 1.83(a), for failure to show every feature of the claimed invention. Specifically, the Examiner indicated that “the control means (claim 8); the electronic link and plurality of aircraft (claim 11); and remotely located detection and recording means (claim 12) must be shown or the features cancelled from the claims.” With this Reply, Applicant cancels claims 8-12, rendering this objection moot. Applicant adds new claim 13, which includes the control means (as in cancelled claim 8). With this Reply, Applicant amends Fig. 5 on formal drawing 4/4 to show “control means 38.” Therefore, Applicant requests that the Examiner withdraw this objection.

The Examiner objected to the specification as failing to provide proper antecedent basis for the claimed subject matter. The Examiner specifically indicated that “[c]laim language directed to ‘an electronic link for coordinating firing of seismic signal instigating projectiles from respective pods mounted on a number of aircraft’ (claim 11); and ‘a detection and recording means for remotely detecting and recording seismic waves’ (claim 12) lacks support in the written specification.” With this Reply,

Applicant cancels claims 11 and 12. Therefore, Applicant requests that the Examiner withdraw this objection.

The Examiner similarly rejected claims 11-12 under 35 U.S.C. § 112, for failing to comply with the written description and enablement requirements. These rejections concerned the same language the Examiner objected to, as explained in the previous paragraph. With this Reply, Applicant cancelled claims 11 and 12. While Applicant adds new claim 13, new claim 13 does not contain the claim language causing these rejections. Therefore, Applicant requests that the Examiner withdraw this objection.

The Examiner also rejected claims 8-10 under 35 U.S.C. § 103(a) as being unpatentable over Clayson et al. in view of Crouch. In light of this Reply, Applicant respectfully submits that the prior art of record does not teach or suggest the pending claim. Applicant respectfully submits that the Examiner has not met the Office's burden to establish a prima facie case of obviousness. To establish a prima facie case of obviousness the Examiner must show, that (1) there is some suggestion or motivation to combine the references' teachings, (2) that there is some reasonable expectation of success for the proposed combination, and (3) that the prior art teaches or suggests all of the claim limitations. M.P.E.P. §§2143.01 - 2143.03.

In rejecting claims 8-10, the Examiner alleges that Clayson "discloses a projectile launching apparatus comprising: a cluster of barrel assemblies, a pod, a vehicle platform, and control means for controlling rate of fire," while "Crouch teaches a plurality of projectiles arranged in sealing engagement in each barrel with discrete ignitable propellant charges for selective activation." Office Action at 4. Further, the Examiner alleges that it "would have been obvious to a person of ordinary skill in this art at the

time of the invention to apply the teachings of Couch to the Clayson et al. projectile launching apparatus and have a projectile launching apparatus that has barrels contain[ing] a plurality of sequentially arranged projectiles.” While Applicant does not agree with the Examiner’s allegations regarding claims 8-10, claims 8-10 are cancelled by this Reply and new claim 13 is added. Applicant requests that the Examiner withdraw his rejections and timely allow new claim 13.

Neither Clayson, Crouch, nor a combination of the two teaches every limitation of new claim 13. Neither Clayson nor Crouch discloses “a firing control means for selecting and firing bursts of projectiles simultaneously from multiple barrels into the ground.” (emphasis added). Clayson describes a revolving cannon, having multiple barrels, in which only a single barrel is fired at a particular time, thus Clayson does not teach simultaneous firing of projectiles from multiple barrels. Crouch teaches the use of single or multiple barrels, however, it teaches the sequential firing of projectiles. Col. 2, lines 1-27. Crouch does not teach simultaneous firing of projectiles from multiple barrels. Thus, for at least this reason, Applicant requests that the Examiner withdraw his rejection and allow new claim 13.

Additionally, neither Clayson nor Crouch discloses “a pod containing a cluster of barrels mounted for aiming together at a ground area having underlying strata to be explored.” (emphasis added). Further, neither reference is even directed to an “apparatus for seismic exploration.” Clayson is directed to “a pod serving as a unitary gun system for a relatively high speed attack aircraft.” Col. 1, lines 8-9. Crouch is directed to a “weapon capable of firing a plurality of ammunition loads in a serial manner.” Col. 1, lines 7-8. Neither reference remotely suggests the use of those

inventions for seismic exploration. Applicant respectfully submits that, for reasons discussed above, Clayson and Crouch fail to teach each and every element of new claim 13, as required under MPEP § 2143.03. New claim 13 is therefore allowable.

Applicant further submits that the Examiner has not met the Office's burden of providing "some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." See MPEP 707.02(j); *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). The Examiner has not explained why one skilled in the art of seismic exploration would have been motivated to combine the teachings of Clayson and Crouch. Nor has the Examiner explained how the claimed invention would have been obvious in light of the teachings of those references. Applicant respectfully submits that for these reasons as well, new claim 13 is allowable, and asks the Examiner to withdraw his rejections.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

The Office Action contains characterizations of the claims and the related art, with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

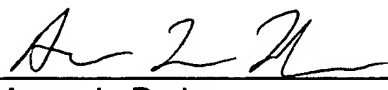
If the Examiner believes a telephone conversation might advance prosecution, the Examiner is invited to call Applicants' undersigned attorney at 202-408-4387.

Please grant any extensions of time required to enter this Reply and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: November 18, 2004

By:   
Aaron L. Parker  
Reg. No. 50,785

Attachments: One Replacement Sheet [Formal drawing 4/4, Fig. 5]

**AMENDMENTS TO THE DRAWINGS:**

Please replace formal drawing 4/4, which includes Fig. 5, with the attached replacement drawing sheet. Fig. 5 on formal drawing 4/4 has been amended to include control means 38.

Attachments:        One Replacement Sheet [Formal drawing 4/4, Fig. 5]